




Work Order ID 70165

Monday, May 30, 2011 12:47:34 PM




Page 1

Item ID: D2916-5 Accept  Setup Start 
Revision ID: Stop 
Item Name: Cable Guard, 212 Skidtube
Start Date: 5/30/2011 Start Qty: 4.00  Cust Item ID:
Required Date: 6/8/2011 Req'd Qty: 4.00  Customer:
Reference:

Approvals: Process Plan:  Date: 11-05-31 Tooling: Date: Run Start 
QC: Date: SPC (Y/N): Date: Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2916	Rev B								


100  FLOW WATER JET 0.00
Waterjet Memo 0.00
FLOW CNC Waterjet 1-Cut as per Dwg D2916 ☐ Dwg Rev: B ☐ Prog Rev: B ☐ 2-
Deburr if necessary

B11-6-9

4

110  QC2- Inspect parts off machine FAI/FAIB 0.00
QC Memo 0.00
Quality Control

B11-6-9

120  HAAS CNC VERTICAL MACHINING #1 0.00
HAAS 1 Memo 0.00
HAAS CNC vertical machine #1 BATCH: 117819 ☐ 1-Mill as per Folio FA2916-5 Rev:
AA & Dwg D2916 Rev: B ☐ 2-Deburr per dwg D2916

B.A N106/15

4

φ

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

Work Order ID 70165

Monday, May 30, 2011 12:47:34 PM



Page 2

Item ID: D2916-5

Accept



Setup Start



Revision ID:

Item Name: Cable Guard, 212 Skidtube

Stop



Start Date: 5/30/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 6/8/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

B.A 11/06/15

4

0

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

JL 11/06/15

(H)

150



Packaging

Packaging

Identify as per dwg & Stock Location: _____

0.00

Memo

0.00

PSP

P 11/9/16 4

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date				

NOTE: Date & initial all entries

Work Order ID 70165

Monday, May 30, 2011 12:47:34 PM



Page 3

Item ID: D2916-5

Accept



Setup Start



Revision ID:

Stop



Item Name: Cable Guard, 212 Skidtube

Start Date: 5/30/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 6/8/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/16
mt

11-06-16

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action		Section B		Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng		Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	70165
Description: Cable Guard		Part Number:	D2916-5
Inspection Dwg: D2916 Rev: B		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**

 ☐ **Prototype**

	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
	1.75	+/-0.030	1.741	✓		Vern	GA-01
	32.13	+/-0.030	32.125	✓		Tape	GA-12
	28.94	+/-0.030	28.940	✓		"	"
	20.81	+/-0.030	20.810	✓		"	"
	7.00	+/-0.030	6.970	✓		"	"
	5.000	+/-0.010	5.002	✓		Vern	GA-01
	13.188	+/-0.010	13.190	✓		Tape	GA-12
	30.125	+/-0.010	30.127	✓		"	"
D-D	0.37	+/-0.030	0.371	✓		D-6	GA-08
	Ø0.438	+0.005/-0.000	Ø0.438	✓		Vern	GA-01
	0.875	+/-0.010	0.871	✓		"	"
E-E	0.37	+/-0.030	0.371	✓		D-6	GA-08
	0.875	+/-0.010	0.871	✓		Vern	GA-01
	Ø0.438	+0.005/-0.000	Ø0.438	✓		"	"
J-J	1.44	+/-0.030	1.441	✓		"	"
	0.063	+/-0.010	0.067	✓		"	"
	0.78	+/-0.030	0.782	✓		"	"
	0.95	+/-0.030	0.949	✓		"	"
	0.20x45°	+/-0.030	0.208x45°	✓		"	"
	0.70	+/-0.030	0.697	✓		"	"
	0.14	+/-0.030	0.145	✓		"	"
	0.36	+/-0.030	0.361	✓		"	"
	1.31	+/-0.030	1.305	✓		"	"
	0.88	+/-0.030	0.880	✓		"	"
	0.78	+/-0.030	0.782	✓		"	"

Measured by:	LA	Audited by:	JH	Prototype Approval:	N/A
Date:	11/06/15	Date:	11/06/15	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.01.12	New Issue	P/O D205-665-015	KJ/RF

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, June 09, 2011 12:46:33 PM

Page 1

Work Order ID: 70165



Parent Item: D2916-5

Parent Item Name: Cable Guard, 212 Skidtube

Start Date: 5/30/2011

Required Date: 6/8/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-06-19 JLM
IPP Rev:B Now water jet 06-07-14 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MUHMWB10

Purchased

No

sf

375.6000

1.6



B11-6-9

UHMW 1" Black

Location

Loc Qty

Loc Code

MAT018

375.6

117321

76.6

117738

59

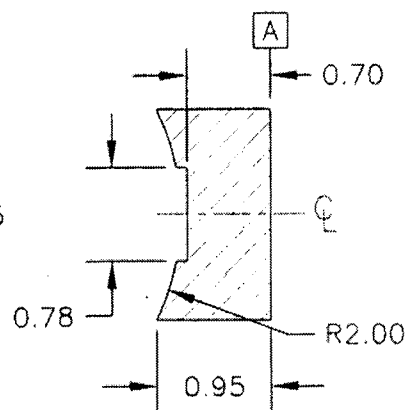
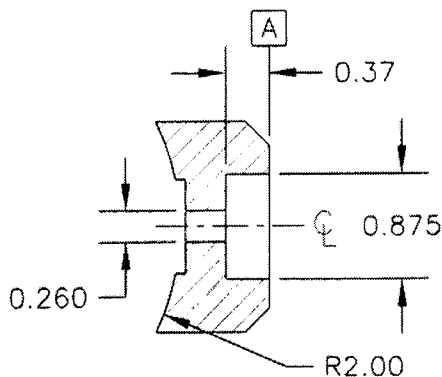
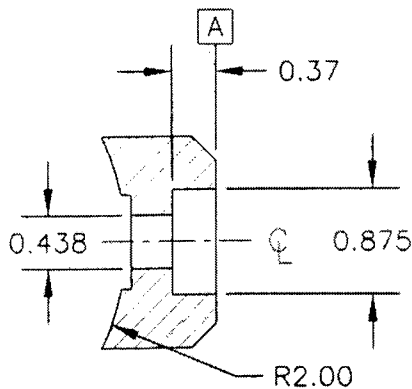
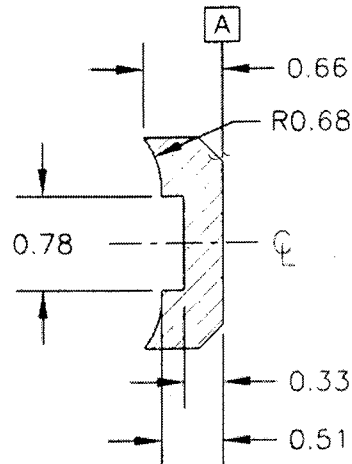
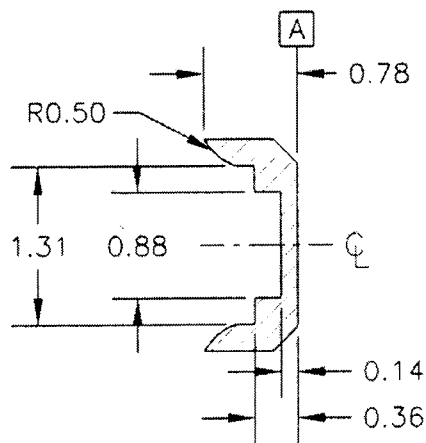
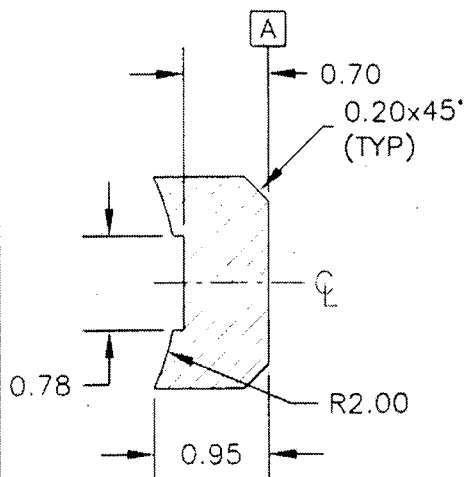
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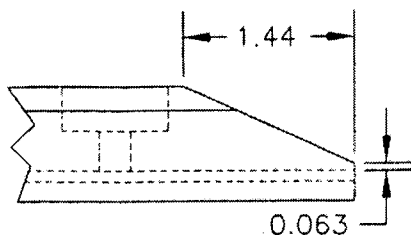
117 819



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2916	REV. B SHEET 1 OF 2
DATE 00.02.24		TITLE CABLE GUARD	SCALE 1:6
A	99.09.29	NEW ISSUE	
B	00.02.24	ADD K-K FOR D2521 COMPATIBILITY	



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 70165



DETAIL J
(SCALE 2:3)

RELEASED
00.02.25 DS

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

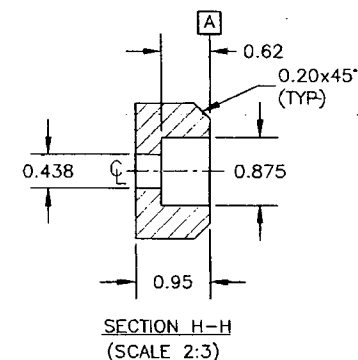
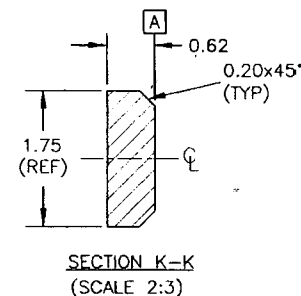
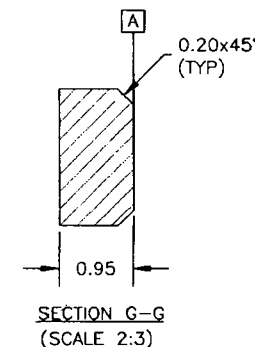
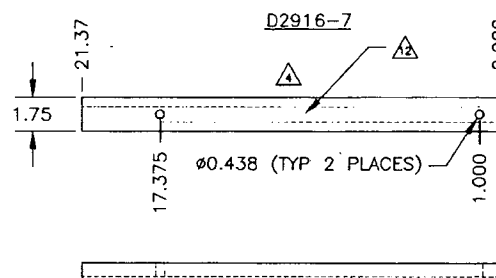
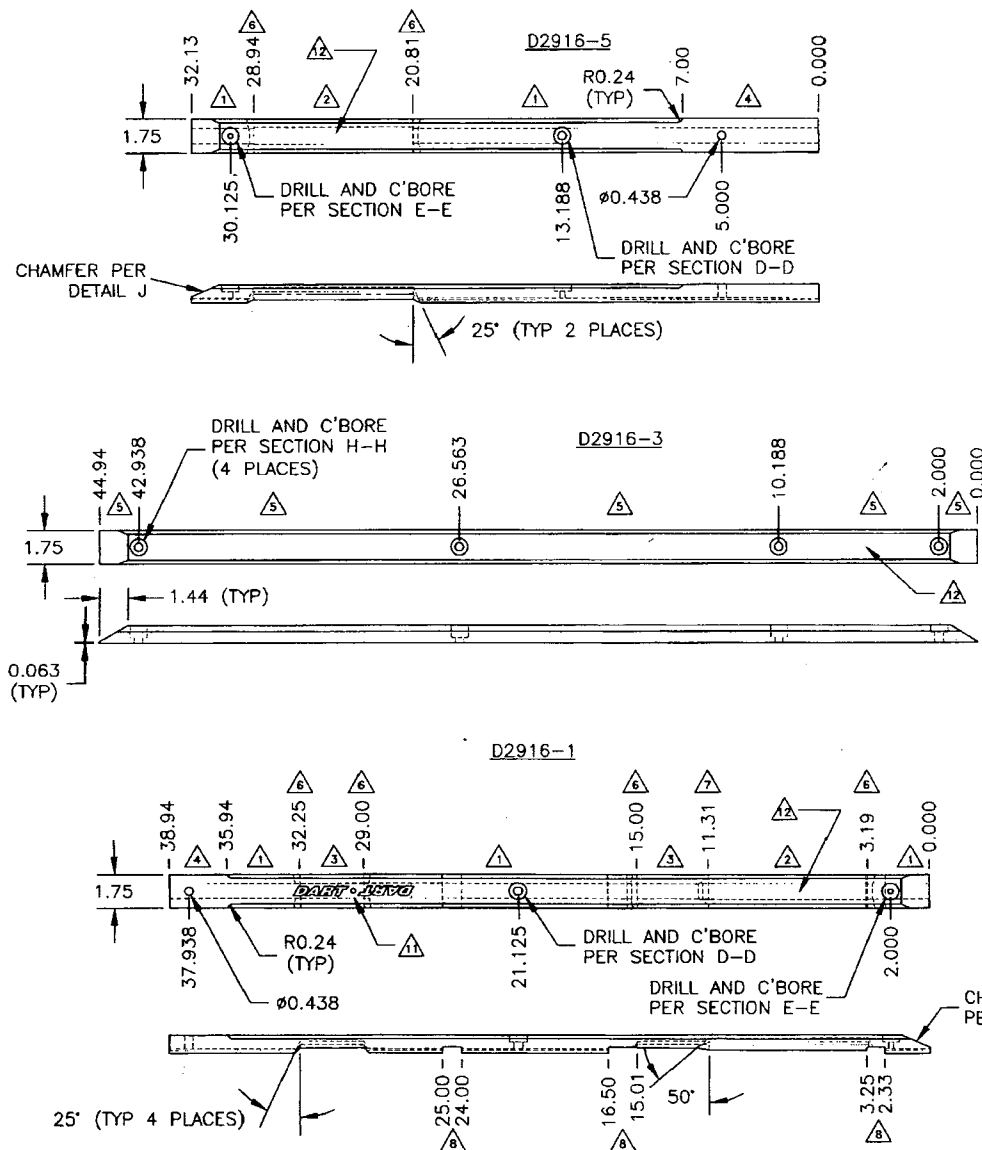
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

410 70605



- NOTES:
- 1) MACHINE CONSTANT SECTION A-A
 - 2) MACHINE CONSTANT SECTION B-B
 - 3) MACHINE CONSTANT SECTION C-C
 - 4) MACHINE CONSTANT SECTION F-F
 - 5) MACHINE CONSTANT SECTION G-G
 - 6) 25° ANGLE OF TRANSITION BETWEEN SECTIONS WITH MIN RADIUS OF 0.50
 - 7) 50° ANGLE OF TRANSITION BETWEEN SECTIONS WITH MIN RADIUS OF 0.50
 - 8) MACHINE SLOT PER SECTION K-K WITH 0.063 RADIUS OF TRANSITION BETWEEN SECTIONS
 - 9) MATERIAL: UHMW BLACK PER SPEC CONTROL DWG D2689
 - 10) BREAK ALL UNMARKED RADII 0.020 TO 0.040
 - 11) ENGRAVE TWO DART LOGOS (OPPOSITE AS SHOWN) ON UPPER SIDE TO MAX DEPTH OF 0.015 AND MIN RADIUS OF 0.250.
 - 12) ENGRAVE P/N ON LOWER SIDE TO MAX DEPTH OF 0.010 AND MIN RADIUS OF 0.010.
 - 13) ALL HOLES DRILLED ON CENTERLINES
 - 14) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 15) ALL DIMENSIONS ARE IN INCHES

RELEASED

DESIGN	DRAWN BY	DART DART AEROSPACE LTD WILLOWDALE, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
DATE	TITLE	D2916	SHEET 2 OF 2
00.02.24	CABLE GUARD		SCALE 1:5

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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